tion and a number of new subjects have been included. For an interesting review of the eighth edition see E. B. Van Vleck, *Bulletin of the American Mathematical Society*, 1896. The author has taken into account, in the later editions, some of the points raised by Professor Van Vleck.

E. J. W.

Leçons de Mathématiques Générales. By L. ZORETTI. xvi+753 pp. Gauthier-Villars, Paris, 1914. 20 francs.

This book is intended as a text to be used by those students in the French universities who, while not specializing in mathematics, find it necessary to study mathematics in preparing for their future careers. The book is admirably suited to its purpose, and American college teachers will find it interesting to note that, to a very considerable extent, the contents of this book coincide with what they usually present to their students in their courses in analytic geometry and calculus. There are included however a number of topics not usually treated in our American courses, and it would seem to be a question well worthy of serious thought, whether some or all of these subjects might not be as valuable to American as to French students of this class. The book is introduced by a preface written by Professor Appell, which discusses with great lucidity the pedagogic situation involved.

E. J. W.

Historical Introduction to Mathematical Literature. By G. A. MILLER. The Macmillan Company, New York. xiii+302 pp. $1.60.

This, the most recent product of Professor Miller's prolific pen, is a real innovation in mathematical literature. The plan and scope of the volume, its purposes and contents, make it differ in kind from any other book about mathematics with which the reviewer is acquainted.

As the author tells us, the book found its origin in a series of lectures which were intended to supplement the regular mathematical courses. Naturally the book itself has turned out to be something partaking of the nature of a supplement, exhibiting a certain lack of unity and a rather noticeable looseness of connection between its various parts. But each of these parts is itself well bound together, and the author expresses his views on a large number of questions in an interesting and forceful style, which frequently assumes the form of epigram.

Professor Miller feels, as many of us do, that something should be done to widen the perspective of our students of mathematics. He thinks that this can best be accomplished, by supplementing the detailed work, in problems and theorems, of the regular courses, by material of an informational and historical character. This is the need which we attempt to meet by "synoptic and inspirational courses." Professor Miller thinks that his book may serve as a basis for such courses, and also for a first course in the history of mathematics.

In regard to the history of mathematics, the author takes a rather novel and interesting point of view. He thinks that a first course in this subject should